

Idemitsu Kosan Xarec® EA 513 SPS, 30% Glass Filled

Category : Polymer , Thermoplastic , Polystyrene (PS) , Syndiotactic Polystyrene (SPS) , Syndiotactic Polystyrene (SPS) with Glass or Carbon Fiber

Material Notes:

Order this product through the following link:

http://www.lookpolymers.com/polymer_Idemitsu-Kosan-Xarec-EA-513-SPS-30-Glass-Filled.php

Physical Properties	Metric	English	Comments
Density	1.48 g/cc	0.0535 lb/in ³	
Filler Content	30 %	30 %	
Water Absorption	0.020 %	0.020 %	24 hrs., 50% RH
Linear Mold Shrinkage, Flow	0.0010 - 0.0030 cm/cm	0.0010 - 0.0030 in/in	
Linear Mold Shrinkage, Transverse	0.0040 - 0.0060 cm/cm	0.0040 - 0.0060 in/in	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	105 MPa	15200 psi	
Elongation at Break	1.3 %	1.3 %	
Tensile Modulus	10.7 GPa	1550 ksi	
Flexural Yield Strength	155 MPa	22500 psi	
Flexural Modulus	10.5 GPa	1520 ksi	
Izod Impact, Notched (ISO)	7.00 kJ/m ²	3.33 ft-lb/in ²	
Izod Impact, Unnotched (ISO)	18.0 kJ/m ²	8.57 ft-lb/in ²	
Charpy Impact Unnotched	2.30 J/cm ²	10.9 ft-lb/in ²	
Charpy Impact, Notched	0.800 J/cm ²	3.81 ft-lb/in ²	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	19.0 Åµm/m-Å°C	10.6 Åµin/in-Å°F	
	@Temperature -30.0 - 30.0 Å°C	@Temperature -22.0 - 86.0 Å°F	
CTE, linear, Transverse to Flow	47.0 Åµm/m-Å°C	26.1 Åµin/in-Å°F	
Deflection Temperature at 0.46 MPa (66 psi)	265 Å°C	509 Å°F	
Deflection Temperature at 1.8 MPa			

(264 psi) Thermal Properties	220 Â°C Metric	428 Â°F English	Comments
UL RTI, Electrical	130 Â°C	266 Â°F	UL746B
UL RTI, Mechanical with Impact	120 Â°C	248 Â°F	UL746B
UL RTI, Mechanical without Impact	130 Â°C	266 Â°F	UL746B
Flammability, UL94	V-0	V-0	
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	V-0	V-0	
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	5VA	5VA	
	@Thickness 2.30 mm	@Thickness 0.0906 in	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+16 ohm-cm	1.00e+16 ohm-cm	
Dielectric Constant	3.1	3.1	
Dielectric Strength	24.0 kV/mm	610 kV/in	ASTM D145
Dissipation Factor	0.0010	0.0010	IEC 60250
Arc Resistance	60 - 120 sec	60 - 120 sec	ASTM D495
Comparative Tracking Index	400 - 600 V	400 - 600 V	IEC 60112
Hot Wire Ignition, HWI	30 - 60 sec	30 - 60 sec	
	@Thickness 1.50 mm	@Thickness 0.0591 in	UL 746A
High Amp Arc Ignition, HAI	>= 120 arcs	>= 120 arcs	
	@Thickness 1.50 mm	@Thickness 0.0591 in	UL 746A
High Voltage Arc-Tracking Rate, HVTR	80.0 - 150 mm/min	3.15 - 5.91 in/min	UL746A

Processing Properties	Metric	English	Comments
Melt Temperature	280 - 310 Â°C	536 - 590 Â°F	
Mold Temperature	50.0 - 80.0 Â°C	122 - 176 Â°F	
	130 - 155 Â°C	266 - 311 Â°F	For optimal surface finish

Descriptive Properties	Value	Comments
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CommentsOptimized RTI

Descriptive Properties	Value	Comments
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Thin wall V0 rating

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